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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,718	04/02/2004	Georg Wittmann	12406-062001	1015
26181	7590	07/29/2005	EXAMINER	
FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			LE, THAO X	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/816,718

Applicant(s)

WITTMANN ET AL.

Examiner

Thao X. Le

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/05, 6/04, 1/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of claims 17-29 in the reply filed on 08 July 2005 is acknowledged. The traversal is on the ground(s) that the restriction appears to require an election of claims rather than species; and the restriction is improper, because claim 1 appears to be a subcombination of claim 17 and claim 17 appears to be generic to claim 13. This is not found persuasive because

- a. The combination vs. subcombination: Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because both combination and subcombination are presented and resumed to be patentable, and it is evidence that subcombination is patentable by itself. Also, the subcombination has separate utility such as but not limited to a dielectric layer in the interconnection structure.
- b. With respect to claim 13 vs. claim 17: they are not generic because 'a polymer layer of ...' vs. 'a first active polymeric barrier layer' would have different meaning in term of claim interpretation.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17-19, 21-23, 25-26, and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6624568 to Silvernail.

Regarding claim 17, Silvernail discloses an organic electronic device that has components in fig. 1 that are sensitive to moisture or oxidizing agents, comprising: a flexible substrate 110, column 4 line 56; a functional area 140, fig. 1, on the substrate 110 comprising active organic elements 140, column 4 line 6; a cap 120/150, column 4 line 2, encapsulating the organic functional area 140; and a first flexible multilayer packaging material 120, column 4 line 1, having a first active polymeric barrier layer 121a (planarizing material), column 4 line 47, that binds moisture and oxidizing agents, column 4 lines 34-37, and a ceramic barrier layer 122a (high density material), column 4 line 47; wherein the first flexible multilayer packaging material 120 protects the functional area 140.

Regarding claim 18, Silvernail discloses the organic electronic device according to claim 17, wherein: the first flexible multilayer packaging material 120 is arranged between the functional area 140 and the flexible substrate 110, fig. 1.

Regarding claim 19, Silvernail discloses the organic electronic device according to claim 17, wherein the cap 120/150 comprises the first flexible multilayer packaging material 120.

Regarding claims 21, 22, Silvernail discloses the organic electronic device according to claim 17, wherein: the cap 120/150 includes one or more materials from the group consisting of polymers, metals and glass, column 5 line 1, wherein: the flexible substrate 110 comprises a polymer, column 4 line 56.

Regarding claim 23, Silvernail discloses the organic electronic device according to claim 22, wherein: the cap 120/150 comprises a second flexible multilayer packaging material comprising: at least one active polymeric barrier layer 151a that binds the moisture and oxidizing agents, column 4 lines 34-37; and at least one ceramic barrier layer 152a.

Regarding claim 25, Silvernail discloses the organic electronic device according to claim 22, wherein: the flexible substrate 110 includes a second active polymeric barrier layer 151a, fig. 1,.

Regarding claim 26, Silvernail discloses the organic electronic device according to claim 17, wherein: the flexible substrate 110 comprises an assembly of active polymeric barrier layers 121a and ceramic barrier layers 122a.

Regarding claim 28, Silvernail disclose the organic electronic device according to claim 17, wherein the functional area 140 comprises a stack having a first electrically conductive layer (cathode), an organic functional layer (light-mission layer) on the first conductive layer (cathode) and a second electrically conductive layer (anode) on the

Art Unit: 2814

organic functional layer; and the organic functional layer comprises at least one organic electroluminescent layer, column 4 line 6-26 and US 5707745 incorporated by reference.

Regarding claim 29, Silvernail discloses the organic electronic device according to claim 17, wherein the functional area 240 includes a stack comprising a first electrically conductive layer (cathode), an organic functional layer (emission layer) on the first conductive layer (cathode) and a second electrically conductive layer (anode) on the organic functional layer 140; and the functional area 140 comprises at least one organic radiation detecting layer forming an organic radiation sensor (electron transporting layer, hole transporting layer), column 4 lines 6-26 and US 5707745 incorporated by reference.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 2814

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 20, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6624568 to Silvernail in view of WO 97/47467 to Mortazavi.

Regarding claims 20, 24, Silvernail discloses the organic electronic device according to claim 17, wherein the cap comprises a second flexible multilayer packaging material 150 comprising: at least one ceramic barrier layer 152a (high density material), column 5 line 45; and at least one active polymeric barrier layer 151a (planarizing material), column 5 line 45 that binds the moisture and oxidizing agents, column 4 lines 34-37, comprising polymer, column 5 lines 1-3.

But Silvernail does not disclose the at least one active polymeric barrier layer of the second flexible multilayer packaging material includes one or more materials from the group consisting of a polymeric matrix with dispersed cyclodextrines, a cyclic olefin copolymer and a polymeric matrix with anhydrides.

However, Mortazavi disclose the at least one active polymeric barrier layer of packaging material includes one or more materials from the group consisting of a polymeric matrix with dispersed cyclodextrines, a cyclic olefin copolymer and a polymeric matrix with anhydrides, page 3 line 14. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the cyclic olefin copolymer teaching of Mortazavi with Silvernail's layer 121a or 151a, because it would have provided excellent moisture barrier and mechanical

support to the polarizing layer in the laminates, which are useful in applications such as LCD, see page 1 'Field of Invention'.

7. Claim 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6624568 to Silvernail in view US 2003/0134460 to Forbes et al.

Regarding claim 27, Silvernail discloses the organic electronic device according to claim 26, wherein the substrate 110 has a first surface (top) and a second surface (bottom, the first surface (top) is closer to the functional area 140 than the second surface (bottom).

But Silvernail does not disclose the second surface comprises a ceramic barrier layer.

However, Forbes discloses a the organic electronic device in fig. 5 comprises a substrate 32 has a first surface (top) and a second surface (bottom, the first surface (top) is closer to the functional area 40 than the second surface (bottom) and the second surface comprises a ceramic 36, fig. 2 [0051]. At the time the invention was made; it would have been obvious to one of ordinary skill in the art to use the ceramic layer teaching of Forbes with Silvernail's substrate, because it would have provided the protection to the substrate as taught by Forbes [0051].

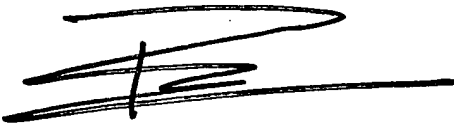


**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X. Le whose telephone number is (571) 272-1708. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy can be reached on (571) 272 -1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thao X. Le  
Patent Examiner  
26 July 2005